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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David Roberts McMurtry

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07/11/2007

OLIFF & BERRIDGE, PLC

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ALEXANDRIA, VA 22320

EXAMINER

GUADALUPE, YARITZA

ART UNIT

PAPER NUMBER

2859

MAIL DATE

DELIVERY MODE

07/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/521,168

Applicant(s)

MCMURTRY ET AL.

Examiner

Yaritza Guadalupe-McCall

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-29, 33-36 and 40-44 is/are rejected.
- 7) ☒ Claim(s) 30-32 and 37-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

In response to Request for Continued Examination filed May 21, 2007

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 23 – 29, 33 - 34, 36 and 40 - 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Hertenberger et al. ( US 7,032,317 ).

In regards to claim 23, Hertenberger et al. discloses a rotary ring system for use in scale reading apparatus comprising a continuous rotary ring ( 3 ) provided with scale marks on a surface thereof, defining a pattern and readable by a read head ( 4 ) of such apparatus; at least one intermediate member ( 2 ); wherein the at least one intermediate member is fitted between the rotary ring and the part of the machine ( 1 ) on which the rotary ring is mounted.

Art Unit: 2859

Regarding claim 24, Hertenberger et al. also discloses a rotary ring system wherein applying a force ( See Column7, lines 11 - 15 ) to one of the at least one intermediate member (2) and rotary ring ( 3 ) secures the rotary ring in place.

With respect to claims 25, 26 and 28, Hertenberger et al. further teaches a rotary ring system wherein the force adjusts the effective radius of the rotary ring, said force is applied to said at least one intermediate member ( 2 ) and wherein applying said force to the at least one intermediate member causes deformation of the at least intermediate member.

In regards to claim 27, Hertenberger et al. also shows a rotary ring system wherein the force is an axial force.

Regarding claim 29, Hertenberger et al. teaches a rotary ring system wherein retaining means ( i.e. adhesive, column 7, lines 15 - 18 ) are provided to retain the at least one intermediate member ( 2 ) on the rotary part of the machine and wherein said force is applied to the said at least one intermediate member by said retaining means.

With respect to claim 33, Hertenberger et al. disclose the intermediate ring system being a continuous ring ( See Figure 1C ).

With regards to claim 34, Hertenberger et al. shows a rotary ring system wherein the intermediate ring system comprises a split ring ( 2 ).

Regarding claim 36, Hertenberger et al. discloses a rotary ring system wherein the at least one intermediate member ( 2 ) is flexible.

In regards to claim 40, Hertenberger et al. discloses a rotary ring system wherein anchor means ( i.e. joining devices ) are provided to prevent rotation of the rotary ring relative to the part of the machine.

With respect to claim 41, Hertenberger et al. shows a rotary ring system for use in scale reading apparatus comprising a continuous rotary ring ( 3 ) provided with scale marks on a surface thereof defining a pattern and readable by a read head ( 4 ) of such apparatus; at least one intermediate member ( 2 ), wherein the at least one intermediate member is fitted between the rotary ring ( 3 ) and the part ( 1 ) of the machine on which the rotary ring is mounted; and wherein applying a force to said at least one intermediate member adjusts the effective radius of the rotary ring.

Regarding claim 42, Hertenberger et al further shows a rotary ring system for use in scale reading apparatus comprising a rotary ring ( 3 ) provided with scale marks on a surface thereof defining a pattern and readable by a read head ( 4 ) of such apparatus; at least one intermediate member ( 2 ); wherein the at least one intermediate member is fitted between the rotary ring and the part of the machine on which the rotary ring is mounted; and wherein the at least one intermediate member is compliant.

In regards to claim 43, Hertenberger et al. suggests a rotary ring system wherein the at least one intermediate member is tangentially compliant.

With regards to claim 44, Hertenberger et al. also suggests a rotary ring system wherein anchor means ( i.e., adhesive or joining devices ) are provided to prevent rotation of the rotary ring relative to the part of the machine.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hertenberger et al. ( US 7,032,317 ).

Hertenberger et al. discloses a rotary ring system as recited in paragraph 2 above.

Hertenberger et al. does not disclose the intermediate ring system comprising a plurality of segments as stated in claim 35.

With respect to claim 35 : Hertenberger et al. discloses a rotary ring system comprising a split ring ( 1 and 3 ). The use of the particular type of ring system claimed by applicant, i.e., a plurality of segments ring, absent any criticality, is considered to be nothing more than a choice of engineering skill, choice or design because 1) neither non-obvious nor unexpected results, i.e., results which are different in kind and not in degree from the results of the prior art, will be obtained as long as a rotary scale ring is provided, as already suggested by Hertenberger et al., 2) the ring system claimed by Applicant and the ring system used by Hertenberger et al. are well known alternate types of ring systems which will perform the same function, if one is replaced with the other, of providing a rotary scale ring to be detected by the read head, and 3) the use of the particular type of ring system by Applicant is considered to be nothing more than the use of one of numerous and well known alternate types of ring systems that a person having ordinary skill in the art would have been able to provide using routine experimentation in order to provide a rotary ring scale to be detected by a read head as already suggested by Hertenberger et al.

***Allowable Subject Matter***

5. Claims 30 – 32, 37 - 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments with respect to claims 23 - 44 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe McCall whose telephone number is (571)272-2244. The examiner can normally be reached on 8:00 AM - 5:30 PM.

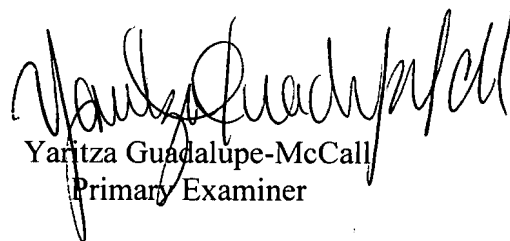
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2859

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YGM  
July 6, 2007  
Art Unit 2859



Yaritza Guadalupe-McCall  
Primary Examiner